

REMARKS

This application has been reviewed in light of the Office Action dated October 23, 2003. Claims 1-31 remain pending in this application. Claims 1 and 9 have been amended to even further clarify the claimed subject matter. Claims 1 and 9 are the independent claims. Favorable reconsideration is requested.

Claims 1, 4, 5, 9, 12, 13, 17-25 and 27-30 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,872,541 (Yoshioka et al.). Claims 2, 3, 10, and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshioka et al. in view of U.S. Patent No. 5,598,052 (Khan et al.). Claims 6-8 and 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshioka et al. Claims 26 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshioka et al. in view of U.S. Patent No. 5,831,387 (Kaneko et al.).

It is strongly believed that the claims pending prior to this Amendment were patentable over the prior art relied on by the Examiner for the reasons set forth in the Remarks section of the Amendment filed on July 15, 2003. Nonetheless, page 6 of the October 23, 2003 Office Action states that “[i]n response to Applicant’s arguments . . . [,] the recitation that the substrate structure is a precursor to an electron source . . . has not been afforded patentable weight since the recitation appears in the preamble.” Without conceding the propriety of this allegation, independent Claims 1 and 9 have been amended herein to recite, in the body of each claim, that the substrate structure is a precursor to an electron source, and comprises a film having a surface on which an electron-emitting device of the electron source is to be arranged.

For example, as amended, independent Claims 1 and 9 recite, respectively:

“1. A substrate structure, comprising:
a substrate; and
an insulating material film provided on said substrate,
wherein said insulating material film comprises a plurality of metallic oxide particles having an average particle size within a range of 6 nm to 60 nm as expressed in a median value,
wherein said substrate structure is a precursor to an electron source, and said insulating material film has a surface on which an electron-emitting device of the electron source is to be arranged.”

“9. A substrate structure, comprising:
a substrate; and
an SiO₂ film provided on said substrate,
wherein said SiO₂ film comprises a plurality of metallic oxide particles having an average particle size within a range of 6 nm to 60 nm as expressed in a median value;
wherein said substrate structure is a precursor to an electron source, and said SiO₂ film has a surface on which an electron-emitting device of the electron source is to be arranged.”

The Office Action again relied on Fig. 11(5) of Yoshioka et al. to reject Claims 1 and 9. That Figure of Yoshioka et al. shows that both an insulating material film 11 and metallic oxide particles 9 are members constituting an electron-emitting device (*see, e.g.*, col. 12, lines 14-20 and Claims 37 and 46). That is, the insulating material film 11 and the metallic oxide particles 9 are elements forming an electron-emitting element itself (*see, e.g.*, col. 7, lines 14-19 and Claims 37 and 46 of Yoshioka et al.). However, those elements do not form part of a precursor to an electron source. Indeed, nothing in Yoshioka et al. would teach or suggest a substrate structure comprising a substrate and an insulating material film as recited in Claim 1, wherein the substrate structure is a precursor to an electron source, and the insulating material film has a surface on which an electron-

emitting device of the electron source is to be arranged. As such, Claim 1 is deemed clearly patentable over Yoshioka et al.

Moreover, for substantially the reasons as those set forth above, neither would anything in Yoshioka et al. teach or suggest a substrate structure comprising a substrate and an SiO₂ film having features as recited in Claim 9, wherein the substrate structure is a precursor to an electron source, and the SiO₂ film has a surface on which an electron-emitting device of the electron source is to be arranged. Accordingly, Claim 9 is believed clearly patentable over Yoshioka et al.

A review of the other art of record has failed to reveal anything that, in Applicants' view, would remedy the deficiencies of the art discussed above, as applied against the independent claims herein. Therefore, those claims are respectfully submitted to be patentable over the art of record.

The other claims in this application depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at least the same reasons as are those independent claims. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

No petition to extend the time for response to the Office Action is deemed necessary for the present Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the

Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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